ABSTRACT OF THE DISCLOSURE

An air flow rate measuring device serves to measure a flow rate of air flowing through a main passage inside an intake pipe of an engine. A base has its one end directed axially of the main passage toward an upstream side of air flowing therein, and its other end directed toward a downstream side thereof, with a bent groove being formed in the base. A circuit module includes a support substrate and a detection element installed one surface of the support substrate for detecting the flow rate of air, the module being joined to the base in a face-to-face relation with respect to each other to form an auxiliary passage in cooperation with the groove. The detection element on the one surface of the support substrate is exposed to air in the auxiliary passage, and the other surface of the support substrate is exposed to air in the main passage.